



In The Clear

The Weather Newsletter For
Interior Central California



Fall 2011/Winter 2012 Edition National Weather Service San Joaquin Valley/Hanford, CA

Welcome, Jim Andersen!

by Steve Mendenhall, Meteorologist in Charge

If you've recently called the forecast office to give us your reports, you may have heard a new voice on the phone. Meteorologist intern Jim Andersen joined our staff on August 29th. He is a Chicago native who earned his bachelor's degree in meteorology at Northern Illinois University. Jim brings experience to our office from having served as a student volunteer at the Chicago forecast office and superstation WGN-TV. He most recently worked for United Airlines as an aviation forecaster.

Jim will routinely be working at our public-service desk answering questions about the weather, preparing climatological products, and taking storm-spotter reports. Please join me in welcoming Jim to the San Joaquin Valley!



SKYWARN WX6HNX

Inside This Issue

Weather ZIGZAG Word Puzzle	2
Fog Safety	3
Return of La Nina	4
Very Wet Water Year Jul 2010-Jun 2011	5
New Weather Stations	6
Winter Safety	7
New River Forecast Point in Merced	7-8
Runnin' the Numbers May-Sep 2011	9-10
Answers to Word Search Puzzle	11

Weather ZIGZAG Word Puzzle

Kevin Durfee, Meteorologist and Hydrology Focal Point

Directions: Each word will bend once, either diagonally, vertically or horizontally. As an example, the word "waterspout" has been highlighted in yellow.

D	G	E	O	S	O	C	E	L	S	A	N	A	H	U	M	I	U	A	E	B	I	T
R	I	Z	Z	L	T	D	A	L	S	V	V	N	B	I	L	F	D	C	U	E	R	H
I	F	L	U	T	A	T	N	V	I	I	I	E	D	U	O	M	H	U	M	A	R	U
W	A	T	E	R	S	T	R	O	T	V	O	R	I	Z	A	I	T	H	I	U	U	N
U	H	U	T	A	R	P	M	O	L	U	N	A	T	O	N	I	W	V	D	F	L	D
M	R	A	F	T	G	E	O	S	F	E	O	D	Y	N	E	O	I	O	O	K	T	E
I	E	D	L	W	N	E	N	U	T	R	K	I	O	H	M	N	S	R	C	E	H	O
B	N	O	U	A	Z	O	N	N	T	R	R	O	N	U	O	H	T	T	G	L	U	I
E	H	E	R	I	Z	N	L	E	E	N	O	S	E	M	M	E	T	E	R	V	N	D
A	K	D	R	I	E	S	R	S	X	I	T	P	R	I	N	O	O	K	I	A	D	A
U	H	O	R	I	Z	L	V	O	R	T	S	N	H	D	I	S	S	S	T	R	D	P
F	H	L	V	I	N	Z	C	I	D	A	T	D	A	I	T	Y	O	I	D	A	S	A
O	N	O	Z	E	R	E	L	L	S	I	H	S	F	E	C	W	S	R	R	E	D	N
G	R	Z	N	R	A	D	L	M	O	R	U	U	O	L	C	H	I	W	T	A	T	E
E	L	M	A	O	D	N	L	T	H	U	N	D	E	S	T	R	I	S	E	W	O	M
E	O	D	T	H	O	O	K	V	O	L	D	C	H	I	N	O	A	N	T	E	R	E
M	I	S	T	N	U	S	N	O	M	T	E	X	N	U	I	Z	O	N	T	H	U	N
O	S	O	N	D	I	O	I	D	A	R	R	E	R	S	O	O	N	K	H	U	R	D
N	T	H	U	M	I	D	R	O	H	O	S	T	O	R	M	P	H	I	C	S	E	O
S	R	A	T	U	P	L	A	D	A	V	A	N	V	O	S	O	I	D	A	R	D	Y

anemometer
anvil
beaufort
celsius
chinook
drizzle
fahrenheit

flurries
funnel cloud
geostrophic
horizon
humidity
kelvin
monsoon

radar
radiosonde
stratus
thunder
thunderstorm
twister
vortex
waterspout

Fog Safety

Brian Ochs, Meteorologist and Assistant Climate Services Focal Point

When winter returns, so does the fog! Here are some words of wisdom:

-When the visibility goes down, it's best to drive slowly! However, if there is zero visibility, or you can no longer see the road in front of you, pull your vehicle off the road to the right and turn off the headlights while waiting for conditions to improve.

-If you have fog lights on your vehicle, use them along with the low-beam headlights when driving in fog (do not use fog lights alone). If your vehicle is not equipped with fog lights, then just use low-beam headlights. Do not use high beams when driving in fog, as the light will reflect and make it more difficult to see.

-Check the latest forecasts at your National Weather Service office!

-Pay special attention to visibility when patchy dense fog is expected. You will probably experience sudden reductions in visibility. Keep in mind that fog usually forms in low-lying areas and along rivers, but it can form anywhere in the San Joaquin Valley. Common dense fog-prone areas in the San Joaquin Valley are: the Kings River near Kingsburg (including along highways 43 and 99) and the middle of the San Joaquin Valley (in and near communities such as Hanford, Lemoore, Wasco, Corcoran, Mendota, Chowchilla, and Merced).

-Observe reduced speed limits on highways/freeways. Watch for zigzagging highway patrol vehicles; they are pacing traffic so motorists will travel at safe speeds for the conditions.

-Check the California Highway Patrol's (CHP) incident log webpage; the link is: <http://cad.chp.ca.gov/Traffic.aspx>. This webpage will show reports where fog is present. You can also call 1-800-427-7623 for road conditions, or check local radio and television stations for reports.

Foggy days, or any day when visibility is reported at one quarter mile or less, can occur from the months of October to April in the San Joaquin Valley. The fog season in this region is defined as November 1st through March 31st, although most of the foggy days occur during December and January. Remember, when the fog is dense, drive with common sense!

Attention Motorists!

Need to know the latest road reports when you are traveling?
CalTrans has set up a special number to find out the status of roads.

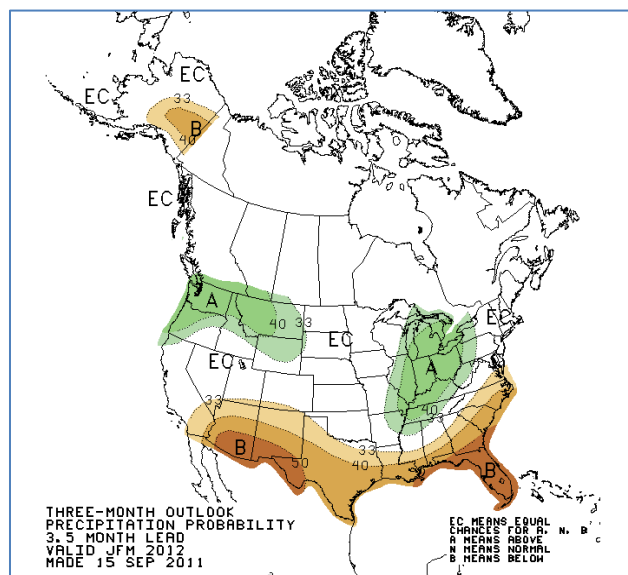
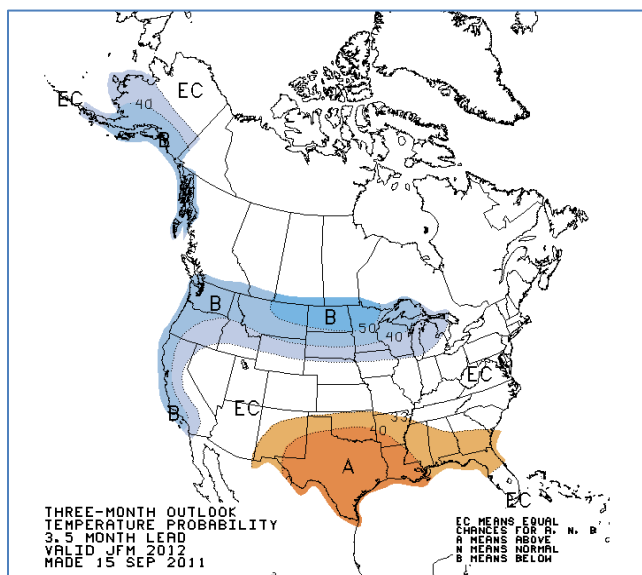
Dial 1-800-427-ROAD.

Return of La Nina

Brian Ochs, Meteorologist and Assistant Climate Services Focal Point

La Nina is expected to return this winter. What does this mean for central California? It usually means drier than normal conditions, but not necessarily warmer than average temperatures. About 76 percent of the time (based on the last 17 La Nina events that have occurred since 1950), precipitation tends to be lower than average, while temperatures are also lower.

This La Nina is expected to be moderate, similar to last winter. The Climate Prediction Center has the latest graphics of what to expect this winter. The maps below show general trends in terms of temperature and precipitation for a 90-day period. This does not mean one month will experience record rainfall like what happened in Bakersfield and Fresno last December, or the wet, cool season (usually occurs from November to April) will not be wetter than average.



Left Map: National temperature outlook for Jan-Mar 2012 Right Map: National precipitation outlook for Jan-Mar 2012. Courtesy: Climate Prediction Center (www.cpc.ncep.noaa.gov)

Climate Summaries through September 2011 are available!

Please use the following link if you would like the monthly climate summaries for the central California interior:

<http://www.wrh.noaa.gov/hnx/clisum.php>

Then click on the link for the month you are interested in (earliest date is January 2006).

Very Wet Water Year for 2011

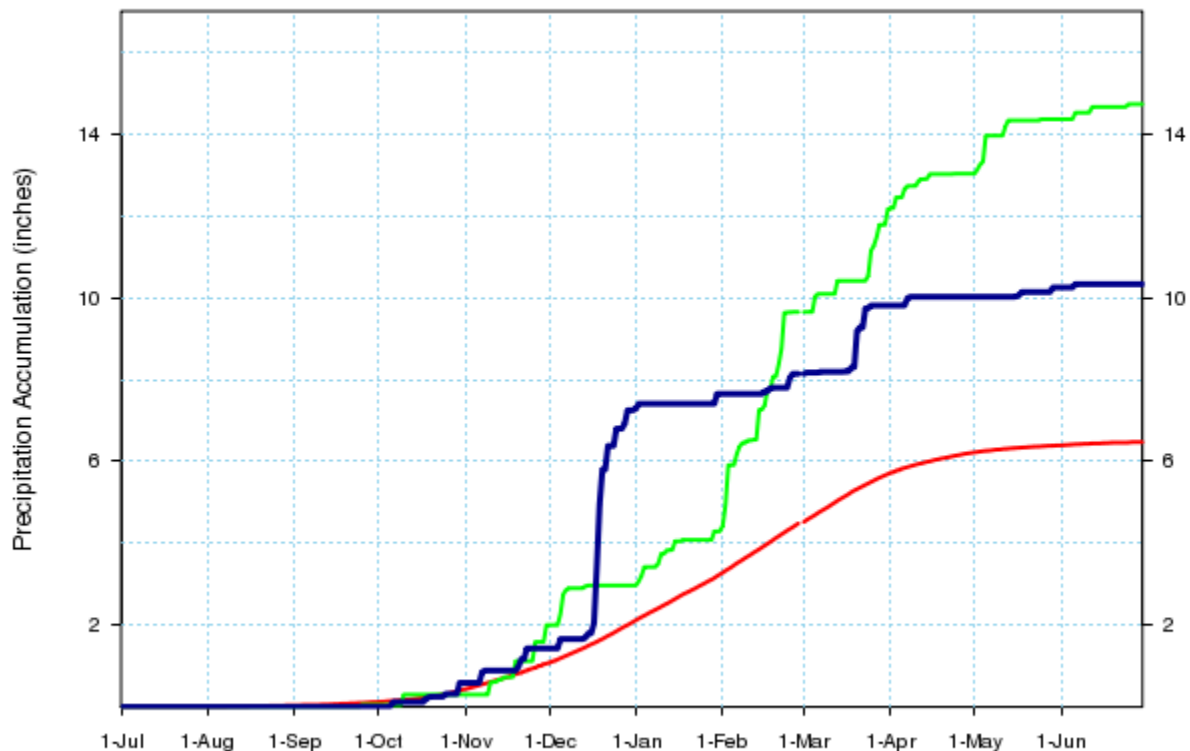
Brian Ochs, Meteorologist

The previous water year that occurred from July 1, 2010 until June 30, 2011 proved quite wet for much of interior central California (i.e., the NWS San Joaquin Valley county warning/forecast area), especially in Bakersfield and Fresno.

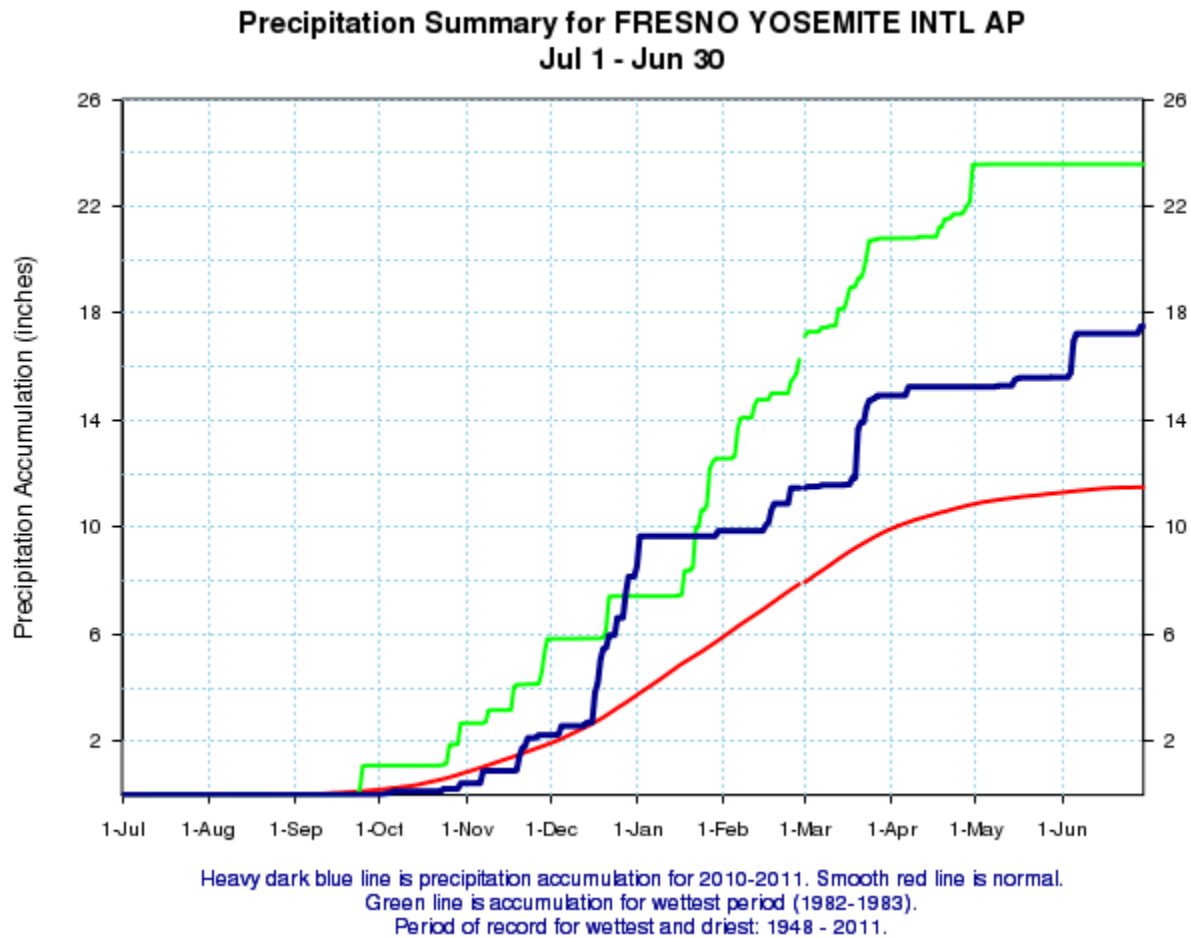
The month of June 2011 this was quite cool and wet, especially until mid-June throughout the forecast area. Snow even continued to fall in the Sierra Nevada even into late June.

The water year ended above normal in terms of rainfall in both Bakersfield and Fresno. Bakersfield received 10.33 inches (159% of normal), and Fresno received 17.51 inches (156 % of normal). Most of this rainfall occurred during the months of December 2010, February-March 2011, and June 2011. In fact, Bakersfield received almost half of its annual rainfall during December 2010 (5.82 inches – keep in mind the annual average there is 6.47 inches)! Fresno received 5.92 inches during that same month; nevertheless, it amounted to approximately a third of the observed rainfall for the previous water year and almost half of the annual average.

Precipitation Summary for BAKERSFIELD AP Jul 1 - Jun 30



Heavy dark blue line is precipitation accumulation for 2010-2011. Smooth red line is normal.
Green line is accumulation for wettest period (1997-1998).
Period of record for wettest and driest: 1937 - 2011.

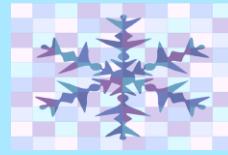
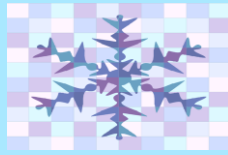


New Weather Stations!

Brian Ochs, Meteorologist

There are now weather stations in the following locations: Taft, Jawbone Canyon, and Sunflower Valley. For those who are not familiar with these locations, Taft is located in the southwest end of the San Joaquin Valley (or about 35 miles southwest of Bakersfield), Jawbone Canyon is in the Mojave Desert along highway 14 between Mojave and Ridgecrest, and Sunflower Valley is along highway 41 in far southwest Kings County in the hills along the west side of the San Joaquin Valley just to the northeast of Cottonwood Pass (about 40 miles east of Paso Robles, or 15 miles south of Kettleman City).

The weather stations were installed at these locations due to a general lack of weather information, especially wind data. Windy conditions are common at these locations, especially when low pressure systems move over the region. Windy conditions can occur at any time of the year, due to a cooler season low pressure system or a marine push of air during the summer months. These stations will provide the information needed for better weather forecasts with longer lead times and improved statements such as advisories, watches, and warnings.



Winter Safety

Brian Ochs, Meteorologist

Winter will soon return to interior central California! The first snow since last spring has already fallen over the southern Sierra Nevada in early October! Here are some safety tips to keep in mind should you venture into the mountains:

- Bring a winter survival kit in your vehicle. Items include (but are not limited to): cellular phone, tire chains, food, flashlight and batteries, blanket, metal container (to melt snow for water), matches, candle, newspaper (for covering up with blanket), snow shovel, and first aid kit.
- Do not travel into the mountains, unless absolutely necessary. Roads may be closed before snow removal crews can clear them. Call Caltrans at 1-800-427-7623 for latest road condition information or go to <http://www.dot.ca.gov/cgi-bin/roads.cgi> and enter in your highway number (e.g., type 5 for Interstate 5).
- Let family and/or friends know your plans and whereabouts.
- If your vehicle becomes disabled or is no longer safe to drive, turn on your engine for heat occasionally for short periods of time to conserve fuel. Keep a window open slightly for ventilation if stuck. Also, keep the exhaust pipe clear of obstructions (such as snow).
- Keep your vehicle off the road and your headlights off if your car becomes disabled or is no longer safe to drive.

New river forecast point in the city of Merced

(Kevin Durfee, hydrology focal point)

Beginning October 1st, residents in the city of Merced, particularly along Bear Creek, can rest a little easier when the threat of flooding occurs. In the past 15 years alone, the high frequency of heavy rain events in the Merced area and the flooding that resulted along Bear Creek prompted the Merced Irrigation District, along with city and county officials, to request guidance from the California-Nevada River Forecast Center (CNRFC). With nearly 55 years of historical data, the stream gage along Bear Creek at McKee Road was chosen as a representative forecast point. High water flows and the associated flood impacts documented at this site during the past decade or so were evaluated by the agencies referenced above, in addition to the National Weather Service, to determine monitor stage and flood stage at this point, which is 17 feet and 23 feet, respectively.

Monitor stage is defined, according to NWS directives, as the stage at which minimal flood impacts will initiate a first level of response from emergency officials, which in this case is the city of Merced. Flood stage is the point at which water begins to flow out of its banks, becomes a serious

threat to life and property, and prompts evacuation of people living in the flood prone areas. Daily forecasts of river stages will be provided by the CNRFC for Bear Creek out to 7 days. If the stage at Bear Creek is forecast to rise to monitor stage but remain below flood stage, the NWS will issue a hydrologic statement. A forecasted rise to flood stage would trigger the issuance of a Flood Warning from the NWS within 24 hours of expected flooding.

Daily forecasts from the CNRFC, particularly during heavy rain events, will provide valuable decision support to city and county officials, including the Merced County Irrigation District, for the purposes of emergency and preparatory planning. In addition, the NWS will be able to provide ample lead time with Flood Warnings, and help emergency managers plan more effectively when evacuations become necessary.

Daily forecasts for Bear Creek at McKee Road can be found on the Advanced Hydrologic Prediction Service (AHPS) website at: <http://water.weather.gov/ahps2/index.php?wfo=hnx>. Graphical river forecast guidance from the CNRFC for this point can also be found at: <http://www.cnrfc.noaa.gov/graphicalRVF.php?id=MEEC1>.

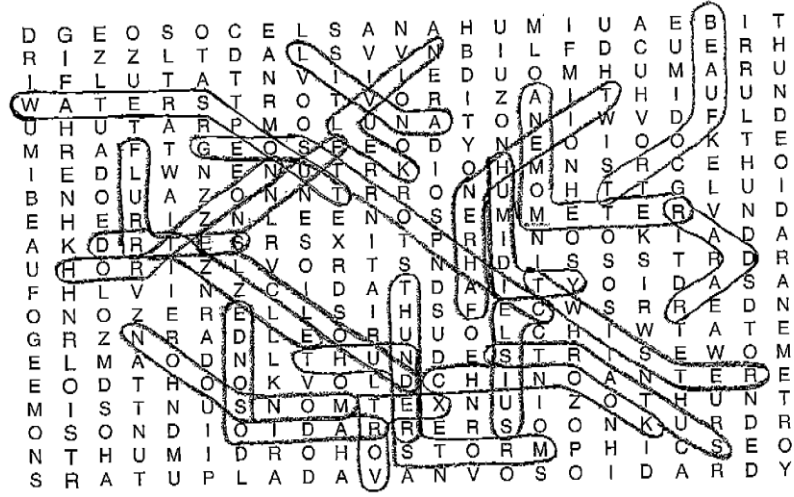
Bear Creek at McKee Road is one of four river forecast points within the National Weather Service San Joaquin Valley's area of hydrologic responsibility. The other river forecast points include the Merced River at Pohono Bridge in Yosemite National Park, the Merced River at Stevinson, and the San Joaquin River at Newman. Daily forecasts for these points can also be found at the websites listed above.



Left above photo: river gage shelter and equipment. Right above photo: view of channel and bank of Bear Creek with river gage shelter on left.

Runnin' the Numbers		Fresno			Bakersfield		
		MAY '11	JUN '11	JUL '11	MAY '11	JUN '11	JUL '11
T E M P E R A T U R E (°F)	Average Maximum	78.7	88.4	96.9	79.9	90.0	97.7
	Average Monthly	65.1	74.9	82.0	66.3	76.1	83.7
	Departure from Normal	-3.7	-1.2	0.6	-4.0	-1.6	0.6
	Average Minimum	51.5	61.5	67.1	52.7	62.2	69.8
	Maximum	96	107	106	97	107	106
	Date(s)	5 th	22 nd	4 th	5 th	22 nd	4 th , 5 th
	Minimum	44	49	57	47	47	60
	Date(s)	1 st	2 nd	15 th	16 th , 31 st	2 nd	15 th
	Number of Days Max >=90	3	17	27	3	18	28
	Number of days Min <=32	0	0	0	0	0	0
P R E C I P I T A T I O N (in.)	Total	0.35	1.91	T	0.23	0.08	T
	Departure from Normal	-0.04	1.68	-0.01	-0.01	-0.04	0.00
	Greatest in 24 hrs	0.23	1.40	T	0.11	0.08	T
	Date(s)	15 th	5 th -6 th	31 st	29 th	6 th	31 st
	Number of days w/precip.	7	4	1	7	2	1
	Seasonal Total	15.60	17.51	T	10.25	10.33	T
	Departure from Normal	4.60	6.28	-0.01	3.88	3.84	0.00
	Compared to Normal (%)	142%	156%	0%	161%	159%	100%
W I N D (mph)	Peak Speed	36	33	25	32	32	25
	Direction	NW	NW	W, NW	NW	NW	NW
	Date(s)	9 th	28 th	13 th , 18 th	25 th	28 th	5 th
P R E S S (in.)	Highest	30.27	30.02	M	30.26	30.02	M
	Date	2 nd	30 th	M	2 nd	30 th	M
	Lowest	29.70	29.68	29.64	29.67	29.68	29.64
	Date	28 th	28 th	2 nd	28 th	28 th	2 nd

Runnin' the Numbers		Fresno		Bakersfield	
		AUG '11	SEP '11	AUG '11	SEP '11
T E M P E R A T U R E (°F)	Average Maximum	98.3	94.7	98.0	94.4
	Average Monthly	82.4	80.3	83.0	80.4
	Departure from Normal	0.7	4.0	0.6	3.2
	Average Minimum	66.5	65.9	68.1	66.3
	Maximum	104	101	104	102
	Date(s)	27 th	7 th , 23 rd	27 th	3 rd
	Minimum	61	58	61	57
	Date(s)	20 th	17 th	21 st	17 th
	Number of Days Max >=90	31	24	31	23
	Number of days Min <=32	0	0	0	0
P R E C I P I T A T I O N (in.)	Total	0.00	T	T	T
	Departure from Normal	-0.01	-0.16	-0.04	-0.08
	Greatest in 24 hrs	0.00	T	T	T
	Date(s)	N/A	23 rd	26 th	24 th
	Number of days w/precip.	N/A	4	1	4
	Seasonal Total	T	T	T	T
	Departure from Normal	-0.02	-0.18	-0.04	-0.12
	Compared to Normal (%)	0%	0%	0%	0%
W I N D (mph)	Peak Speed	26	32	24	33
	Direction	N	S	NW	E
	Date(s)	18 th	10 th	3 rd	10 th
P R E S S (in.)	Highest	M	M	M	M
	Date	M	M	M	M
	Lowest	29.63	29.65	29.63	29.65
	Date	30 th	10 th	30 th	10 th

ZIGZAG Word Puzzle solution

(Above: Answers to Puzzle on Page 2)

National Weather Service San Joaquin Valley is on Facebook!

Go to <http://www.facebook.com/NationalWeatherService.Hanford.gov> to keep up on latest activities and weather updates.

There are lots of cool photos and videos here, including those of recent weather events (such as the Oct 5-6 storm). Check it out!

In The Clear is a newsletter issued by the:



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Hanford, CA 93230-5236